

# Aquilegia

Newsletter of the Colorado Native Plant Society



“ . . . dedicated to the appreciation and conservation of the Colorado native flora ”

Volume 27 Number 4

WORKSHOP EDITION

September - October 2003

## 2003-2004 COLORADO NATIVE PLANT SOCIETY WORKSHOP PROGRAM

Jill Handwerk & Mignon Macias, Workshop Committee Co-Chairs

The Colorado Native Plant Society is proud to present the East Slope workshop schedule for the 2003 - 2004 season. West Slope workshops will be listed in a future issue.

For 20 seasons, workshops have brought native plant lovers together with well-informed instructors, who have herbarium specimens, live plants, photographs, identification keys and other materials available for hands-on study. Attendees need no special skills or background - a love of plants and a desire to learn are the only prerequisites. The goal is to demystify plant identification and enhance our enjoyment and understanding of Colorado's native flora. All East Slope workshops are one day only, from 9:00 a.m. to 3:00 p.m. The same material will be presented at multiple sessions.

To register for East Slope workshops please complete and mail the enclosed registration form (see page 5) to: Colorado Native Plant Society Workshops, PO Box 200, Fort Collins, CO, 80522. **WE ARE NOT ACCEPTING PHONE-IN OR EMAIL REGISTRATIONS.** Please enclose mailing labels with your registration form. This will assist the Workshop Committee as they send out packets to registrants.

About 14 days prior to the workshop, registrants will receive notice regarding location, time, lunch, references, supplies and a list of other registrants. The fee for each workshop is \$12 for CONPS members and \$27 for non-members. Members of native plant societies of neighboring states are considered members of the Colorado Native Plant Society for purposes of workshop registration. Payment by cash or check is due on the day of the workshop. The workshop fee will be waived for members who volunteer to assist with workshop setup and fee collection.

If you cannot attend a workshop for which you are registered, contact Jill Handwerk at [jhand@lamar.colostate.edu](mailto:jhand@lamar.colostate.edu) or 970/221-3460 at least **5 days prior** to the workshop. **Cancellations after that time will be charged a \$12 cancellation fee.**

### MYSTERIOUS MOONWORTS

Leader: Peter Root

Location: Denver Botanic Gardens Herbarium

First Session: November 8, 2003

Second Session: November 9, 2003

Colorado has at least 10 species many botanists have never seen. Some *Botrychium* are very rare and of concern to those who manage public lands. Much of their life cycle is little known. You may have even driven by them without knowing it.

### BEGINNER ARCHAEOBOTANY

Leader: Dr. Linda Cummings

Location: Paleo Research Institute, Golden

First Session: December 6, 2003

Second Session: December 7, 2003

What is archaeobotany? What inferences can be made by interpreting archaeobotany samples? Learn the answers to these questions and many more while sifting through actual Colorado samples to look for plant remnants of past civilizations. You will attempt to identify specimens using reference books and morphologic characteristics.

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### **ASTERACEAE TRIBES**

**Leader: Dr. David Buckner**

**Location: Foothills Nature Center, Boulder**

**First Session: January 10, 2004**

**Second Session: January 11, 2004**

Break through the "intimidation wall" surrounding this group and appreciate the many sunflower family plants in Colorado's native flora. First, basic floral structures and terminology will be examined. Then, the varying combinations of characteristics that distinguish the major groups ("tribes") will be discussed. Illustrated examples from the Colorado flora will be viewed and available for hands-on dissection. All participants are required to have eaten (or at least gotten up close to) an artichoke the night before.

### **SEDGES OF COLORADO**

**Leader: Nan Lederer**

**Location: Univ. of CO, Boulder, Ramaley Bldg, Rm C-231**

**First Session: February 7, 2004**

**Second Session: February 8, 2004**

Do all sedges look alike? Not when you look closely and observe the subtle differences. Carices are widespread and important plants, both in wetland and dryland habitats. This workshop will focus on keying Colorado sedges of the genus *Carex*. Using specimens, pictures and material collected for hands-on dissection, we will become more familiar with the terminology and morphological characteristics used in keys.

### **NATIVE ORCHIDS OF COLORADO & VICINITY**

**Leader: Dr. Charles Sheviak**

**Location: To be announced**

**First Session: March 20, 2004**

**Second Session: March 21, 2004**

The orchids include many immediately recognizable species that never fail to attract attention. Identification of some species, however, is a challenge even for the specialist. With unique morphology and corresponding novel terminology, orchids present a challenge to those using keys. This workshop will provide a photographic introduction to orchids of Colorado and vicinity with emphasis on complex groups, and to their characteristics and terminology. Then, using actual specimens, participants will have an opportunity to gain hands-on familiarity with each species and the interpretation of characteristics used in keys.

### **FERNS AND FERN ALLIES OF COLORADO**

**Leader: Dr. Tom Ranker**

**Location: Univ. of CO, Boulder, Ramaley Bldg, Rm C-231**

**First Session: April 17, 2004**

**Second Session: April 18, 2004**

In a slide presentation participants will be introduced to the basics of fern morphology, the fern cycle and fern ecology. We will also learn how to identify all of the genera of ferns in Colorado and have a look at all of the species. Live and pressed herbarium specimens will be available for use with keys.

### **GARDENING IN COLORADO**

**Leader: Tom Lemieux**

**Location: 806 Brooklawn, Boulder**

**First Session: May 22, 2004**

**Second Session: May 23, 2004**

This hands-on, outdoor workshop is designed to teach participants about different aspects of gardening in Colorado climate and soils. Participants will install a designed landscape, emphasizing Colorado native and drought tolerant plants. Garden layout, color and height coordination, phenology and bed preparation techniques will be covered. A plant list will be available. Wear gardening clothes and bring gloves and hand tools.

### **WORKSHOP COMMITTEE CHANGES HANDS**

After 19 years, Workshop Committee Chair Bill Jennings has resigned to spend more time with his family and to pursue his passions. The Board of Directors thanks Bill for all his hard work in making the CONPS workshops so successful and highly attended.

The first two Colorado Native Plant Society workshops were organized in January and February of 1984 by Sue Galatowitsch, Dr. Miriam Denham and Ann Cooper. Bill organized the third workshop, held in March of 1984. It was a very ambitious Lily/Iris/Orchid workshop co-taught by Chuck Sheviak, Dieter Wilken and Bill Jennings. Ruth Ashton Nelson (Aven Nelson's widow) attended. The workshop was a huge success and Eleanor Von Barga drafted Bill to continue the workshops into the next year. By the end of the 1993 workshop season, Bill had organized 99 workshops. He resigned at that time and was honored the following fall at the annual meeting with a lifetime membership certificate. Bill's wife, Carolyn Crawford, did artwork for the certificate, but she had a devil of a time keeping it from him, especially since they both work at home. Bill finally figured out that something was up a couple days before the annual meeting when she wouldn't show him the certificate she was working on.

For the 1993-1994 season, Carol Dawson, Bobbie Siems and one other carried out the 13 workshops Bill had organized. They were over-whelmed and all quit at the end of the season. Lynn Riedel organized a grass identification workshop led by Dave Buckner for the 1994-1995 season, the only workshop that year. Bill took over the workshops again in the fall of 1995, generally quitting annually, then taking it up again when nobody wanted it. By the end of the 2003 season, 249 workshops had been held. Bill had a hand in all but three.

Once again, Bill is stepping down. For the 2003-2004 season Mignon Macias and Jill Handwerk are co-chairing the Workshop Committee. They have an ambitious schedule planned, and for Bill's sake, we hope they will come back again next year.

*Thank you, Bill!*

## THE PUZZLING PURPLES: *VIOLA SELKIRKII*, *VIOLA ADUNCA*, AND THE *VIOLA SORORIA* COMPLEX IN COLORADO

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Few wildflowers offer the instant recognition that violets do: carrying charm and personality in abundance, violets have little chance for misidentification to genus, at least. There, however, their charm may cease and the challenges begin, for while *Viola* may be a "no brainer" to genus, assignment to species may tax the patience of the most devout violet fan.

The challenges that violets pose, especially the "violet violets", come from a number of factors. Flower color (typically white, yellow or some shade of purple) is critical for identification and provide an essential point of reference in many keys. Unfortunately, many violets bloom early and do not stay in bloom long; late flowers may be cleistogamous. Corolla parts are not always straightforward to recognize due to their appendages or spurs and relative sizes or shapes are easily confused, especially on herbarium specimens. The flowers are delicate and do not press well, often dropping critical parts or withering, and their color changes with drying. Leaf morphology beyond the classic heart-shape can also be confusing: leaves typically enlarge throughout the growing season, thus changing the density of pubescence along with leaf size.

The growth form of violets can be obscure as well: caulescence (flowers coming off axillary peduncles on the leafy stem) versus acaulescence (flowers off basal peduncles, stems thus not appearing leafy), another critical point in keys, can be difficult to determine when plants are young and condensed. Plants later elongate and sprawl like their horticultural relatives the pansies; but at this point the critical flowers may be past. The habitat of violets can make another key point difficult to discern: their tendency to grow in loose moss mats and along unstable stream banks makes it challenging to determine whether plants have rhizomes or stolons or neither. Finally, violets are known to hybridize. This is espe-

cially true for many of the eastern complexes and may be true here as well, at least for some species.

In spite of these obstacles, *Viola* species are identifiable, even if we have not yet worked out a mutually agreeable nomenclature for all of them. We need better information in Colorado on many species, especially for the purple violets that inhabit plains wetlands and moist areas through the foothills to the montane zone. Among the confusing "purples" are three taxa that are frequently confused and misidentified: *Viola selkirkii*, *Viola adunca*, and a complex of closely related entities with a plethora of names that will be broadly identified here as the *Viola sororia* complex. This latter group includes species variously identified in different regional treatments as *Viola sororia*, *V. sororia* var. *affinis*, *V. nephrophylla*, *V. pratincola*, and *V. papilionacea* among numerous others. Its nomenclatural history, to quote McKinney (1992), is "tortuous". Pending a genetic analysis over the continental scope of this complex, it seems best to treat them as a single but widely variable complex under the umbrella name of *V. sororia* s. l. This follows McKinney (1992) and Weber and Wittmann (2001) in subsuming other nomenclature under the inclusive *sororia* epithet, and is suggested in the Flora of the Great Plains (1986). Other options are offered in Hartman and Nelson (2001).

Of these three, *Viola selkirkii* has the greatest conservation concern. With a global range across northern Eurasia and North America, *V. selkirkii* is close to its southern limit in New Mexico, and carries a Natural Heritage Program rating of G5S1. Our only known records for *V. selkirkii* are historical ones from Rocky Mountain National Park near Estes Park and a canyon near Devil's Head in the Rampart Range. The few other purported records from the state are misidentifications of either *V. adunca* or *V. sororia* s. l. Because of the conservation

interest in *Viola selkirkii* and the tendency to misidentify these three species, we present here some straightforward ways to distinguish them. Aside from nomenclatural difficulties within the *sororia* complex, they all can be differentiated based on a few characters, once it is clear what to look for.

We need more fieldwork in the mid-elevations and cool damp habitats to look for extant *Viola selkirkii* populations here and in New Mexico; this can clarify species status on the southern fringes of its range. Parallel work is ongoing in South Dakota (Hornbeck et al. 2002) and additional Colorado surveys will complement those efforts to assess ecology, distribution and population trends in this species.

***Viola selkirkii* Pursh ex Goldie** - "great spurred violet."

**Global range:** Circumpolar, Eurasia-North America.

**North American range:** Alaska, Canada, Pacific Northwest, Colorado, New Mexico, South Dakota east through New England.

**Colorado distribution:** Known only from Rocky Mountain National Park and the vicinity of Devil's Head, northern Rampart Range. Neither population has been relocated recently and the one in Rocky Mountain Park is believed extirpated.

**Distinguishing features:** A large (4-7 mm), prominent blunt spur almost equal in length with the petals; lateral petals are beardless. Leaves deeply cordate, with rounded basal sinuses, often with lobes almost overlapping. Growth habit is acaulescent, lacking stolons but with slender rhizomes (which often break off in collections).

**Confusing aspects:** Key treatments often mention glassy hairs on the upper leaf surfaces as diagnostic. Many specimens do have these hairs when young, especially along the veins, but some do not and hair

"Viola" continues on page 4

**"Viola" continued from page 3**

density changes with age of the leaf. A number of our *V. sororia* populations also have some pubescence on the leaf surfaces when young and misidentifications have occurred because of this aspect. The large floral spur or the characteristic leaf shape of *V. selkirkii* will reliably distinguish it from others in the acaulescent group.

**Habitat:** Deep moist shade, often in moss mats elsewhere in its range. Colorado specifics unknown, but it should be looked for in spruce forests, especially on north-facing slopes or unusually cold, damp microhabitats such as the base of cliffs.

**Synonyms:** None relevant to Colorado.

***Viola adunca* Smith - "hooked spur violet."**

**Global range:** North America and Greenland.

**North American range:** Alaska, Canada, western United States, east through New England.

**Colorado distribution:** Widely distributed throughout the state.

**Distinguishing features:** Distinct short tufted growth habit, especially when young; appearing somewhat acaulescent early but clearly caulescent later, lacking stolons, but sometimes with slender rhizomes. The leaf bases are subtruncate to subcordate, very blunt; the spur is short (3-5 mm), typically tapering to a point or noticeable "hook".

**Confusing aspects:** The spur is shorter than in *V. selkirkii*, but still more noticeable than in the *V. sororia* complex; the hooked apex is usually (but not always) apparent. The leaves may have some early pubescence, but turn glabrous in age. The truncate leaf bases are quite distinctive, even late in the season, and serve to distinguish this species from others.

**Habitat:** Cool moist canyons of mid elevations, often along streams. This is the most likely species to overlap in habitat with *V. selkirkii*.

**Synonyms:** *Viola labradorica* is a synonym for *V. adunca* var. *minor*. This is a small arctic-alpine taxon which some botanists treat as a separate species from *V. adunca*. That issue is not yet resolved.

***Viola sororia* Willdenow - "downy blue violet," "woolly blue violet," "le Conte's violet."**

**Global range:** North America.

**North American range:** Broadly distributed across North America for the species which McKinney (1992) divides into 4 varieties: var. *sororia* (midwest to eastern U.S. and southern Canada), var. *affinis* (western U.S., including Colorado, and north-eastern U.S.), var. *missouriensis* (eastern U.S.), and var. *novae-angliae* (upper midwest to Maine, Quebec and New Brunswick).

**Colorado distribution:** East Slope to the plains.

**Distinguishing features:** The complex includes a wide range of morphologies under this broad interpretation. Generally the species can be distinguished by the short spur (0.2-2 mm), long bearded lateral petals, and cordate petals with a broad sinus. Growth habit is acaulescent, with a stout branching caudex, lacking stolons.

**Confusing aspects:** Some early leaves can have hairs on the upper surface when young (hence the common name) but they typically turn glabrate in age. Leaf sinuses are much wider than in *V. selkirkii*, and the spur is tiny in comparison. This is probably a hybrid complex throughout portions of its range, particularly with

plains species at lower elevations (Great Plains Flora, 1986).

**Habitat:** Lower to mid elevations, often as an understory species in willows or other shrubs along streams.

**Synonyms or segregates in the complex:** *V. pratincola*, *V. nephrophylla*, *V. papilionacea*, *V. affinis*. Other treatments and a long list of synonyms can be found in Hartman and Nelson (2001), Weber and Wittmann (1996), Flora of the Great Plains (1986) and NRCS Plants website (plants.usda.gov). McKinney (1992) is the most recent assessment.

**Literature Cited**

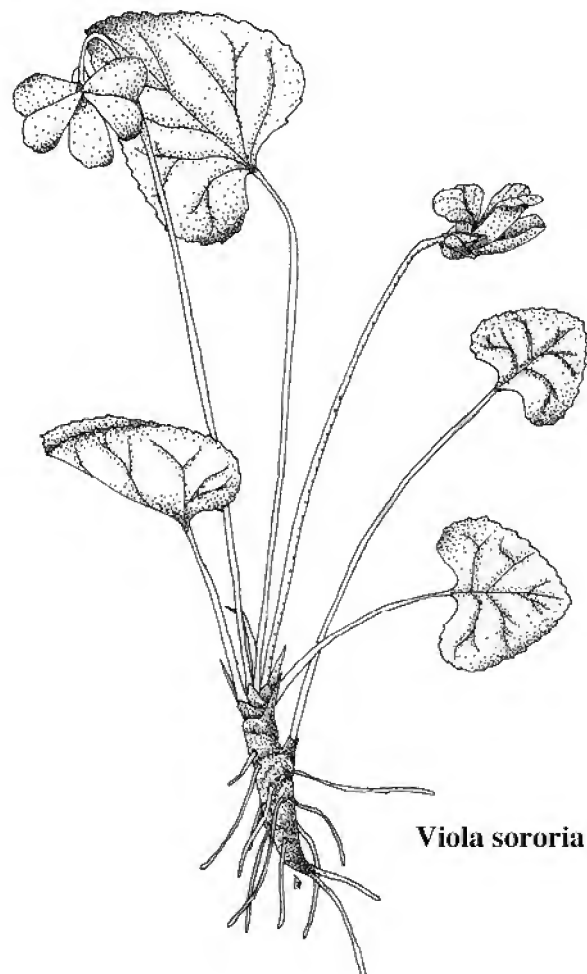
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***Viola sororia***

## 2003-2004 EAST SLOPE WORKSHOP REGISTRATION FORM



NAME: \_\_\_\_\_  
 STREET: \_\_\_\_\_  
 CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_  
 PHONE: \_\_\_\_\_ EMAIL: \_\_\_\_\_

Mysterious Moonworts  
 \_\_\_\_\_ Saturday, Nov. 8  
 \_\_\_\_\_ Sunday, Nov. 9

Beginner Archaeobotany  
 \_\_\_\_\_ Saturday, Dec. 6  
 \_\_\_\_\_ Sunday, Dec. 7

Asteraceae Tribes  
 \_\_\_\_\_ Saturday, Jan. 10  
 \_\_\_\_\_ Sunday, Jan. 11

Sedges of Colorado  
 \_\_\_\_\_ Saturday, Feb. 7  
 \_\_\_\_\_ Sunday, Feb. 8

Native Orchids of Colorado  
 \_\_\_\_\_ Saturday, March 20  
 \_\_\_\_\_ Sunday, March 21

Ferns of Colorado  
 \_\_\_\_\_ Saturday, April 17  
 \_\_\_\_\_ Sunday, April 18

Gardening in Colorado  
 \_\_\_\_\_ Saturday, May 22  
 \_\_\_\_\_ Sunday, May 23

\_\_\_\_\_ I am willing to switch days.  
 \_\_\_\_\_ I am willing to help with attendance and registration at the workshop.

\_\_\_\_\_ I have provided mailing labels, please notify me by regular mail.  
 \_\_\_\_\_ I would like to receive registration notification by email.

Mail Workshop Registration Form to:  
 COLORADO NATIVE PLANT SOCIETY WORKSHOPS  
 PO Box 200  
 Fort Collins, CO 80522

### Research Papers Available

Dr. William Weber's recent paper, *The Middle Asian Element in the southern Rocky Mountain Flora of the western United States: a critical biogeographical review*, Journal of Biogeography, 30:649-685, is available by emailing Dr. Weber (weberw@buffmail.colorado.edu and ask for "phyto paper") or on the internet, spot.colorado.edu/~weberw. The latest version of his manuscripts on the moss flora and the liverwort flora of Colorado are also available on the website. The study was supported in part by small grants from CONPS.

### Upcoming Conferences

#### **Integrating Science & Management on the Colorado Plateau**

November 3-7, 2003, Flagstaff, Arizona  
[www.usgs.nau.edu.conf2003/](http://www.usgs.nau.edu.conf2003/)  
[David.Mattson@nau.edu](mailto:David.Mattson@nau.edu)

#### **Colorado Weed Management Association**

December 10-11, 2003, Fort Collins, Colorado  
[www.cwma.org](http://www.cwma.org)

#### **4th Southwestern Rare and Endangered Plant Conference**

March 22-25, 2004, Las Cruces, New Mexico  
<http://nmrareplants.unm.edu>  
 Deadline for Abstracts - Dec. 1, 2003

### Natural Area Volunteer Stewards Needed

The Volunteer Steward Program for Colorado Natural Areas has been very successful, with many CONPS members in the over 70 volunteer stewards! We are looking for a few more folks, particularly for out-of-the-way sites in El Paso, Hinsdale, Moffat, Montezuma, Park, Rio Blanco and Yuma counties. All that we ask for is one visit per year, over at least three years, and completion of a simple field form. To volunteer, call Ron West at 303-894-2580 or [ron.west@state.co.us](mailto:ron.west@state.co.us).



Viola adunca

### DEADLINE APPROACHES

#### **Submit *Aquilegia* contributions by November 10**

Submit contributions for Vol. 27, No. 5 of *Aquilegia* on or before November 10. Articles not exceeding 1000 words are especially welcome. Previously published articles submitted for reprinting require permission. Follow the format from previous issues closely. Submit via e-mail or on disks as an MS Word or rtf document. See page 7 for additional information.

## CHAPTER NEWS

### Boulder Chapter

**Boulder Announces New Chapter President.** Tommi Scanes has accepted the nomination of chapter president. She hails from South Africa, where she dedicated much of her leisure time to her love of native plants. Arriving in Colorado seven years ago, it was natural that Tommi would extend this love to our Rocky Mountain natives. She has been a member of CONPS for one year and is completing a further degree in Horticulture in her spare time.

Monthly chapter meetings are the on the second Thursday of the month at 7 PM at the City of Boulder Open Space and Mountain Parks offices in the north building conference room, 66 South Cherryvale Road. From South Boulder Road, go south on Cherryvale 1/10 mile and turn west onto a lane to the offices. Contact Tommi Scanes, scanescan@comcast.net or 303-682-1208.

**October 9, 2003** Randy Mandell, Rocky Mountain Native Plants and President of the Society for Ecological Restoration, Central Rockies, will talk about various restoration and native plant issues.

**November 13, 2003** **Vanishing Forests: Blister Rust and Pine Ecosystems of the West.** Diana Tomback, Professor and Chair of Biology at CU.

### Fort Collins Chapter

Monthly meetings are scheduled October through April at 7:00 PM in the CSU Anatomy-Zoology Building, Room E112. Join us for dinner with the speaker at 5:15 PM at Avogadro's Number on Mason St. in Fort Collins. For more information, contact Chapter President Annette Miller, 970-495-3240 or almiller@lamar.colostate.edu.

**October 7, 2003** **An Introduction to Phytoremediation.** Dr. Elizabeth Pilon-Smits, CSU, will present an overview of her research on selenium metabolism in plants and its relevance for phytoremediation of selenium. This will be an excellent follow-up to Dr. Sue Martin's selenium talk last spring.

**November 4, 2003** **Weed Control Efforts in Fort Collins Natural Areas.** Matt Parker, City of Fort Collins, will talk about the city's experiments with controlled burns and other weed control efforts.

**December 2, 2003** **An Introduction to Soil-Plant-Microbe Relations. Go Underground!** Dr. Mary Stromberger, CSU.

### Metro-Denver Chapter

Monthly meetings are held September through April at 7 PM in the Waring House at the Denver Botanic Garden. The Waring House is the mansion just south of the main entrance on York Street. To enter, head south on York past the Gardens main entrance. Make immediate right into parking lot that says "Staff Parking". For more information, contact Chapter President Rita Berberian at rberberian@hotmail.com or (303) 513-0591. Prior to the meeting at 5:30 PM, members are invited to join speakers for pizza at Angelo's, 620 East 6th Ave (between Pearl and Washington) in Denver.

**September 23, 2003** **CANCELLED due to Annual Meeting on September 27, 2003.**

**October 28, 2003** **Microbiotic Crusts - The Unsung Heroes that Crunch and Squish Under Foot!** Juanita Ladyman, botanist and plant ecologist with JnJ Associates, will discuss the ecological significance of microbiotic crusts and some of the results of her research examining microbiotic crusts in pinyon-juniper woodland.

**December 9, 2003** **Using Plants for Environmental Cleanup.** Elizabeth Pilon-Smits, Colorado State University, will discuss her research on phytoremediation, which involves the use of plants and their associated root microbes to clean up environmental pollution.

**January 27, 2004** **Propagation of Native Plants.** Marty and Dick Fisher, Ramshorn Native Plants, will discuss native plant propagation for use in landscaping. Discussion will include ethical seed collection, organic propagation methods using

unheated greenhouses and open seed beds, companion planting, and sources of native plant propagation information. Participants will be able to use this information for growing native plants in their own gardens.

**February 24, 2004** **Kirk Johnson, Department Head and Curator of Paleobotany, Denver Museum of Nature and Science.**

**March 23, 2004** **26 Years of Plant Conservation at the Colorado Natural Areas Program.** Ron West, CNAP Program Manager.

**April 27, 2004** **Song of the Alpine.** Joyce Gellhorn, author.

**May 2004** **Picnic and Hike. Date and Location TBA**

**July 2004** **Garden Tour. Details TBA**

### Plateau Chapter

Chapter activities are scheduled throughout the year. For more information, contact Chapter President Jeanne Wenger at (970) 256-9227 and Bluecrow2u@aol.com or Program Chair Lori Brummer at (970) 641-3561 and lbrummer@gunnison.com.

**November 15, 10:00 AM** **Fall Potluck and Planning Meeting.** Forest Service office in Delta.

### Southeast Chapter

Activities are scheduled throughout the year. Contact President Dan Fosha at 719-229-0857 or danfosha@aol.com.

### Southwest Chapter

For news and activities, contact Chapter President Sandy Friedley at 970-884-9245 or by e-mail at friedley@frontier.net.

### Aquilegia On-Line

For the first time, *Aquilegia* is available via email. Please be patient while we work out some bugs. Send comments, suggestions or your email address to Membership Chair Eric Lane, eric.lane@ag.state.co.us, or Newsletter Editor Alice Guthrie, molly82@earthlink.net.



Colorado Native Plant Society

# Aquilegia

The Colorado Native Plant Society is a non-profit organization dedicated to the appreciation and conservation of the Colorado native flora. Membership is open to all with an interest in our native plants, and is composed of plant enthusiasts both professional and non-professional.

Please join us in helping to encourage interest in enjoying and protecting Colorado's native plants. The Society sponsors field trips, workshops, and other activities through local chapters and statewide. Contact the Society, a chapter representative, or committee chair for more information.

## Schedule of Membership Fees

Life .....	\$250
Supporting .....	\$50
Organization or Corporate .....	\$30
Family or Dual .....	\$20
Individual .....	\$15
Student or Senior .....	\$8

## Membership Renewal/Information

Please direct all membership applications, renewals, and address changes to the Eric Lane (Chair of Membership), Colorado Native Plant Society, P.O. Box 200, Fort Collins, CO 80522. Please direct all other inquiries regarding the Society to the Secretary at the same address.

*Aquilegia* is published four or more times per year by the Colorado Native Plant Society. This newsletter is available to members of the Society and to others with an interest in native plants. Articles for *Aquilegia* may be used by other native plant societies or non-profit groups, if fully cited to author and attributed to *Aquilegia*.

Articles not exceeding 2000 words in length and shorter items fewer than 500 words in length, such as unusual information about a plant, are especially welcome. Previously published articles submitted for reprinting require permission. Camera-ready line art or other illustrations are also solicited. Please include author's name and address, although anonymity may be requested. Articles submitted via e-mail or on disks (IBM preferably) are appreciated. Please indicate word processing software and version; if possible, submit as an RTF (rich text format) file.

Please direct all contributions to the newsletter to:

**Alice Guthrie**

**509 Collyer**

**Longmont, CO 80501**

**E-Mail: molly82@earthlink.net**

**guthriea@ci.boulder.co.us**

## Officers

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Vice-President ...	David Anderson . 970-484-0774
Secretary .....	Kim Regier .... 303-556-8309
Treasurer .....	Georgia Doyle . 970-491-6477

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Neil Snow (04) . . . .	Greeley . . . . 970-330-4823
Dick Fisher (05) . . .	Steamboat
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Sue Kamal (05) . . . .	Greeley . . . . 970-353-9240
Pat Ploegsma (05) . .	Strasburg . . . 303-622-9439
John Proctor (05) . .	Walden . . . . 970-723-8204

## Chapter Presidents

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Fort Collins . . . .	Annette Miller . . 970-495-3240
Metro-Denver. . .	Rita Berberian . . 303-513-0591
Plateau . . . . .	Jeanne Wenger . . 970-256-9227
Southeast . . . . .	Dan Fosha . . . . 719-572-6972
Southwest . . . . .	Sandy Friedley . . 970-884-9245

## Standing Committees and Chairs

Conservation . . .	Joe Rocchio . . . . 720-494-0876
Education and Outreach	
..... Sue Kamal . . . .	970-353-9240
Field Studies . . .	Neil Snow . . . . 970-330-4823
Field Trips . . . .	Gwen Kittel . . . . 303-258-0908
Finance . . . . .	Denise Culver . . 970-225-1930
..... Georgia Doyle . . .	970-491-6477
Horticulture and. Laurel Potts . . . .	970-625-4769
Restoration . . . and Lisa Tasker . .	970-544-3633
Membership. . . .	Eric Lane . . . . . 303-239-4182
Newsletter . . . .	Alice Guthrie . . . 303-651-3127
Sales . . . . .	Ann Armstrong . . 720-564-2052
..... Sue Kamal . . . .	970-353-9240
..... Laurel Potts . . . .	970-625-4769
Rare Plant . . . .	Eleanor
Monograph . . .	Von Bargaen . . . 303-756-1400
Research Grants. Neil Snow . . . .	970-330-4823
Website . . . . .	Bob Clarke. . . . . 970-242-6067
Workshop: East . .	Jill Handwerk & . 970-491-5857
..... Mignon Macias . .	303-377-0662
West . . . . .	Gay Austin. . . . . 970-641-6264

## MEMBERSHIP APPLICATION AND RENEWAL FORM

Name(s) \_\_\_\_\_

Address \_\_\_\_\_

(Address) \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone (\_\_\_\_) \_\_\_\_\_ E-mail \_\_\_\_\_

Chapter: ☐ Boulder ☐ Fort Collins ☐ Metro Denver ☐ Plateau ☐ Southeast ☐ Southwest

In addition to my membership, I have included \$\_\_\_\_\_ as a contribution to the John Marr Fund (endowment in support of small grants-in-aid of research), \$\_\_\_\_\_ as a contribution to the Myrna P. Steinkamp Memorial Fund (endowment in support of small grants-in-aid of research), or \$\_\_\_\_\_ as a general contribution to the Society.

## MEMBERSHIP CLASS:

Dues cover a 12-month period.

- ☐ Individual, \$15.00  
☐ Family/dual, \$20.00  
☐ Senior, \$8.00  
☐ Student, \$8.00  
☐ Corporate, \$30.00  
☐ Supporting, \$50.00  
☐ Lifetime, \$250.00



*CoNPS IS A NON-PROFIT ORGANIZATION — DUES AND CONTRIBUTIONS ARE TAX-DEDUCTIBLE*



# CALENDAR - 2003-2004

## CHAPTER EVENTS

### Boulder Chapter

- October 9 Restoration & Native Plants
- November 13 Vanishing Forests: Blister Rust and Pine Ecosystems of the West

### Fort Collins Chapter

- October 7 An Introduction to Phytoremediation
- November 4 Weed Control Efforts in Fort Collins Natural Areas
- December 2 An Introduction to Soil-Plant-Microbe Relations. Go Underground!

### Metro-Denver Chapter

- September 23 CANCELLED
- October 28 Microbiotic Crusts - the unsung heroes that crunch and squish under foot!
- December 9 Using Plants for Environmental Cleanup

- January 27 Propagation of Native Plants
- February 24 To be announced
- March 23 26 Years of Plant Conservation at the Colorado Natural Areas Program
- April 27 Song of the Alpine
- May Picnic and Hike
- July Garden Tour

### Plateau Chapter

- November 15 Fall Potluck & Planning, 10 AM

## WORKSHOPS

- Nov. 8, 9 Mysterious Moonworts
- Dec. 6, 7 Beginner Archaeobotany
- Jan. 10, 11 Asteraceae Tribes
- Feb. 7, 8 Sedges of Colorado
- March 20, 21 Native Orchids of Colorado
- April 17, 18 Ferns of Colorado
- May 22, 23 Gardening in Colorado



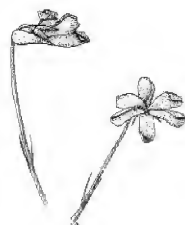
Colorado Native Plant Society

P.O. Box 200  
Fort Collins, Colorado 80522  
<http://www.conps.org>

Place  
Stamp  
Here



*Viola selkirkii*



TIME SENSITIVE MATERIAL